10

The claims defining the invention are as follows:

- A method for converting a communication in a first communication protocol to a second protocol,
 - the first protocol including information and signalling.
- 5 the method including:
 - converting the information into a digital stream, and incorporating the signalling in the digital stream using bit-robbing.
 - A method as claimed in claim 1 wherein the signalling is carried on a signalling channel, different channel from the information channel carrying information.
 - A method as claimed in claim 1 or 2 wherein the information is in the voice band channel and the signalling is an out-of-band channel.
 - 4. A method as claimed in claim 1 or claim 1, wherein the information is in the form of analog signals and the signalling is in the form of digital signal.
- 15 5. An arrangement for converting a communication in a first protocol to a second protocol.
 - the communication including information and signalling,
- the arrangement including a splitter arrangement separating the information onto a first information path, and the signalling onto a first signalling path, and
 - a multiplexer arrangement applying the information to a digital stream and incorporating the signalling into the digital stream by bit-robbing.
 - An arrangement as daimed in claim 5 including a network response emulator responsive to the signalling to send an appropriate response.
- 25 7. An arrangement as claimed in claim 6, wherein the emulator is on the downstream side of the multiplexer arrangement.
 - An arrangement as claimed in any one of claim 5 to 7, wherein the multiplexer arrangement includes a multiplexer circuit, the buffer storing the signalling data prior to multiplexing.
- 30 9. An arrangement as claimed in any one of claims 5 to 8 including a controller controlling the multiplexer arrangement.
 - An arrangement for converting at least first and second signals to a common protocol, the first signal having a first protocol different from the common protocol,

10

15

20

the arrangement including a multiplexer the second signal into a bit stream and incorporating the first signal into the bit stream carrying the second signal by bit robbing.

- 11. An arrangement as claimed in claim 10, wherein the second signal has a second protocol different from the common protocol and different from the first protocol, the arrangement including a second converter to convert the second signal to the common protocol.
- 12. An arrangement for converting signals as claimed in claim 9 or claim 10.
- including a network response emulator which emulates network responses to at least one of the signals.
 - 13 A method of converting at least first and second signals to a common protocol, the first signal having a protocol different from the common protocol, the method including,
 - multiplexing the second signal into a bit stream and
- incorporating the first signal into the bit stream carrying the second signal by bit-robbing.
- 14. A method of converting signals substantially as herein described with reference to the accompanying drawings.
- An arrangement for converting signals substantially as herein described with reference to the accompanying drawings.
 - 16. A service agile communication arrangement to make available a plurality of services to a customer's premises, the arrangement including:
- at the network access side of the customer's line, a network line interface adapted to transmit and receive information and signalling according to a
 25 chosen communication protocol;
 - at the customer premises side of the line, a customer line interface adapted to transmit and receive information and signalling according to the chosen communication protocol;
- the customer line interface including means to convert between the
 information and signalling protocol of the service and the chosen communication protocol.

- 17. An arrangement as claimed in claim 16 wherein the network lines interface converts between the chosen protocol and a network protocol for communication with the network.
- 18. An arrangement as claimed 16 or claim 17 wherein the chosen protocol isthe IDSL protocol (2B1Q).

DATED THIS EIGHTEENTH DAY OF OCTOBER 2000 ALCATEL